DOCUMENT RESUME

ED 166 377 CE 018 922

AUTHOR Perun, Pamela J.; Bielby, Denise D.
TITLE Towards a Model of Female Occupational Behavior: A Human Development Approach. Revised Version.
INSTITUTION Duke Univ., Durham, N.C. Dept. of Sociology.; Duke Univ. Medical Center, Durham, N.C. Dept. of Psychiatry.
PUB DATE Aug 78
NOTE 47p.; Paper presented at the American Sociological Association Annual Meeting (73rd, San Francisco, September 4-8, 1978)
AVAILABLE FROM Department of Sociology, Duke University, Durham, North Carolina 27706

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Behavior; *Behavior Theories; *Career Development; Employment; Employment Patterns; *Employment Trends; Females; *Human Development; Labor Force; Models; Theories; *Working Women

ABSTRACT

After a discussion of the patterns of female labor force activity and the trend toward increased participation in the labor force by women between 1900 and 1975, this paper points to the need to re-examine traditional ideas about women and work and to develop a model of female occupational behavior based on a human development approach. Four theories, those of Roe, Holland, Ginzberg, and Super, which respectively represent the trait-factor, personality, self-concept, and vocational development theories of occupational behavior, are described. The theories are then evaluated for their applicability to women and for their relevance to a human development approach. Stating that Super's theory of vocational development comes closest to satisfying the developmental criteria but that it still has serious limitations, the paper concludes that either major revision of existing theory or formulation of new theoretical perspectives is necessary for the development of a model of female occupational behavior. Figures accompany the discussions of the four theories, and four pages of references are appended. (LHS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

NOV 2 0 1978

REVISED VERSION

ED166377

TOWARDS A MODEL OF FEMALE OCCUPATIONAL BEHAVIOR:

A HUMAN DEVELOPMENT APPROACH

Pamela J. Perun*
Department of Sociology
Duke University

Denise D. Bielby
Social Process Research Institute
and
Department of Sociology
University of California-
Santa Barbara

*Address requests to: Dr. Pamela J. Perun
Department of Sociology
Duke University
Durham, N. C. 27706

CE 018 922

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Denise D. Bielby

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND THE ERIC SYSTEM CONTRACTORS."

TOWARDS A MODEL OF FEMALE OCCUPATIONAL BEHAVIOR: A HUMAN DEVELOPMENT APPROACH

Introduction

Over the past quarter-century, a dramatic change has occurred in the life course of the typical American female. For a variety of reasons, it can be argued that most women expect a work role to be a permanent addition to their characteristic adult roles of wife and mother (Van Dusen & Sheldon, 1976). Current population statistics reveal that more women than ever before in all socioeconomic strata are either in the labor force or are preparing for entry into it. Over 90% of women today will be employed at some point in their lives, and recent projections assume that substantial rises in female labor force participation will occur at least through 1990. In a recent study, it was estimated that by 1990, more than 70% of all females between the ages 16 to 54 will be working, a rate only slightly less than that of males (Samuelson, 1977).

Furthermore, in contrast to earlier patterns of labor force participation, women of all ages and of all family life cycle stages are now in the work force, with a striking increase in the proportion of women from the least socially-sanctioned stage, the period of child-bearing and young child-rearing. Apparently fewer women today plan socially-expected labor force interruptions and instead participate more continuously in work throughout their lives. The inclusion of a work cycle in the female life course is a significant alteration of traditional roles which is likely to have a major impact on both the lives of individual women and on the social structure as a whole. But prevailing interpretations of the work cycle of women fail to reflect accurately these alterations in adult life experiences of American women. Therefore, it is

essential that the empirical and theoretical bases for traditional ideas about women and work be re-examined.

Social scientists, in particular, must re-evaluate both previous assumptions about the work life of women and previous research on occupational behavior. In early research, women have been ignored as subjects and only a few typically female occupations have been studied extensively. Only in the last decade have social scientists, demographers in particular, turned their attention to the phenomenon and consequences of female labor force participation. While more comprehensive research is being conducted at present on women and work, it remains limited in focus and restricted in scope. Almquist's conclusions about sociological research on women's attainment is directly applicable to past and present research on women and work in general. In her view, "most current research is macrosociological rather than microsociological, based on large-scale, impersonal, aggregated, and static data rather than small-scale, personal, disaggregated, and dynamic findings. From this we get a very firm appraisal of women's overall position in the labor force but we do not know the processes by which they attained it" (Almquist, 1977, pp. 853-854). If, then, we were to ask social scientists, "what do we really know about women and work?", the answer would probably be, "little". We do know about changes in female labor force participation as a social trend through the study of aggregate data. However, we know very little about the developmental course of the work cycle in the lives of women. Research in this area is crucial to progress toward a model of female occupational behavior.

The task of explicating the work cycle of women clearly rests with social scientists of the life course, human developmentalists. The human development perspective is uniquely suited to integrating and interpreting changes at the

societal level, that is, patterns of female labor force participation, with changes at the individual level, that is, the development of the work cycle in women. However, in spite of overwhelming evidence of life course changes in women's lives as suggested by labor force statistics, little has been done to incorporate such changes into theories of the development of occupational behavior or to explain them in developmental terms. The intent of this paper, written in response to the need for discussion and integration of information in this area, is to review what is known about women and work at both the societal and individual levels of analysis in order to expedite and stimulate future empirical and theoretical research. At the societal level, the literature reviewed will be that of trends of female labor force activity and related aspects of their lives from 1900 to 1975. At the individual level, theories of the development of occupational behavior drawn primarily from vocational psychology will be evaluated for their applicability to women. An integration of the two areas will be suggested through an evaluation of their relevance to a human development paradigm.

In the literature, the behavior to which we are referring has many names: career development; occupational development; vocational behavior and so on. We are using the term "occupational behavior" in this paper for several reasons. Our primary concern is to distinguish between the meanings of occupation and career. "Career" normally has developmental implications. That is, a "career" has an orderly sequence of progressively higher-level stages. Second, the notion of a "career" has been attached to a small number of specific, elite occupations such as the professions. It is clear that most women have "jobs" rather than "careers," and women in specific professions are a distinct minority. Our purpose being the discussion of work activity rather than "career" activity, we have chosen to refer to such activity as "occupational behavior" because all women who work exhibit occupational behavior but only a few exhibit career development. The

description and specification of a work cycle in women should not be limited to those women in prestigious occupations, given the characteristics of the female labor force and market.

Thus, this paper attempts a multiple contribution by laying the groundwork for future studies of adult development to address the work cycle of women as a distinct process and as a component of human development which should in turn stimulate research into a female model of occupational behavior.

Trends in the labor force participation of women, 1900-1975

Within this century, the participation of women in the labor force has undergone substantial changes resulting in the addition of a life-role to the typical role configuration of adult women. A brief historical summary of trends in the labor force participation of women is presented below as an illustration of such changes.

At the turn of the century, there were primarily three occupations in which paid work outside the home was available to women. Domestic service employed the greatest number of women and factory work employed the second largest number in jobs which were related to women's traditional household tasks as sewing and weaving. School teaching was the third major source of employment for women. The typical female worker at that time was young, unmarried, of lower-class or immigrant origins, and, unless in domestic service, disproportionately white. Domestic service was an occupation for white women whose marriage prospects were dim or whose marriage plans were still far in the future. It provided not paid work outside the home, but paid work within someone else's home. As such, it was a genteel and respectable occupation for lower-class white women who had no other means of support and for black women as well. Factory work was a less genteel occupation but the typical factory worker was much like the typical

white domestic servant: young, single, an immigrant or a daughter of immigrants (Smuts, 1960, pp. 19-21). The typical school teacher was similarly young, white and unmarried but, in contrast, middle-class as school teaching was virtually the only respectable employment for unmarried women with some education and middle-class backgrounds.

Paid work for women at the turn of the century was primarily confined to women who lived near towns or cities where work was available. However, nearly half of all American women still lived on farms in 1900 (Smuts, 1960, p. 6) where their labor was critical to the family economy but ignored in official labor force statistics. The only rural women recognized in labor force statistics were those who ran their own farms as a result of their husband's death or incapacitation (Smuts, 1960, p. 10). However, their estimated numbers were small compared to those of women who were in other occupations or who were considered unpaid family farm workers.

Consequently, paid work <u>outside</u> the home at the turn of the century was only a brief episode in the lives of some women before they began their real life work of bearing and raising their own families. Marital status, class and age were the primary socio-economic determinants of working women. When the family cycle for women began, the work cycle ended.

The work pattern of women changed little between 1900 and 1940. At both times, the highest participation rates were found among young women within the ages of 20 and 24 with a sharp decline after age 25 when many women married and stopped working. Few married women ever returned to the labor force later in their lives. The only major change between 1900 and 1940 was in the level of participation which rose from 31.7% to 45.6% (Oppenheimer, 1970, p. 7). In 1940 as in 1900, the work cycle and the family cycle were distinct phases in the life course patterning of women.

However, during the post-war years the work pattern of women changed substantially. One major factor in such changes was the timing of major events in the family cycle. As shown by Glick (1955) who contrasted the median ages of husbands and wives at major events in the family cycle at three different decades, the timing of such events had accelerated since the turn of the century. Both men and women married at an earlier average age in 1950 than in 1890, had their children earlier, and also had their children leave the family at an earlier age. Since life expectancy rates for both sexes have increased about 20 years since the turn of the century, the post-parental stage of the family cycle when women are freed from the demands of intensive childcare has increased in length.[1]

As a result, the age pattern of labor force participation of women altered in the 1950s as women in the post-parental stage of the family cycle entered or reentered the work force. By 1960, the modal age of working women was 45-49 with 47.4% of all women in this age bracket participating in paid employment (Oppenheimer, 1970, p. 15). To summarize this trend,

> For every age group past 35, the average annual increase in the proportion working has been greater since 1940 than during the 1900 to 1940 period. For women past 45, the percent increase in the proportion working was greater in the twenty-year period from 1949 to 1960 than in the forty-year period between 1900 and 1940; and for women 55 and older, the percent increase between 1940 and 1960 was more than double that for the forty years before 1940. (Oppenheimer, 1970, p. 17)

This increase in the labor force participation of older married women can be accounted for not only the changing rhythm of the family cycle but by changes within the post-war economy as well.[2] With the increasing urbanization of the country since the turn of the century, paid work for women became available even in previously rural areas. At the same time, farming has declined as an occupation for women workers as the number of farms has decreased. Between 1960-73, for example, the number of women employed as farm workers declined by nearly 50% (Women's Bureau, 1975, p. 101), thus illustrating how women, many never previously

counted as workers, became available for paid work outside the home. Furthermore, the number of occupations which utilized female labor had greatly increased since 1900, and employment opportunities for middle-class women were expanding in white collar occupations such as clerical, service and sales work (Kreps, 1971). The trend since the turn of the century has therefore been one of a lessened concentration of the female labor force in manual labor. In the post-war era, opportunities increased for women workers in the white-collar occupations for which middle-class women were eligible, even desirable, in terms of education, skill and status.

As noted above, the escalation of female labor force participation began in the 1950s with the return of married women over 45 to work. In 1950, 38% of the women in this age bracket were employed; by 1960, 50% were working. However, in the 1960s their rate of increase began to level off and grew only to 55% by 1974 (Klein, 1975, p. 10). But the female labor force continued to grow substantially in the 1960s as younger groups of women entered the work force. Among women aged 24-34, 34% were working in 1950 and 36% in 1960, but by 1974 a substantial rise to 52% had occurred (Klein, 1975, pp. 10-11). Among women aged 34-44, a similar increase occurred in the 1960s, and by 1974 almost 50% of the women in this age group were employed. Therefore, the trend of labor force participation of women in the post-war years has been one of great expansion: in 1945 about 32% of all women (age 16 and over) worked; by 1970, some 43% were employed; and by 1990 70% of American women are expected to be in the labor force (Samuelson, 1977).

As older women began to return to the labor force in the 1950s, the proportion of working wives increased. In 1900, only 5.6% of wives were employed. By 1975, that figure has increased to 44% (Hayghe, 1976, p. 13) with the result that the family model of husband-worker and wife-housewife is valid for only 34% of husband-wife families compared to 56% in 1950 (Hayghe, 1976, p. 18). In the 1960s, the

increase in the labor force participation rate of younger women meant that greater numbers of mothers were working. Changes in labor force participation patterns among these women are linked to an increasing belief in less traditional sex-role attitudes as well as increased employment opportunities in a stimulated economy (Mason, Czajka and Arber, 1976). Prevailing reasons for their entry include financial need and greater career commitment among women professionals and managers (Retert and Bumpass, 1974). In fact, by the late 1960s, wives under 35 were entering the labor force at a greater rate than older wives which meant that more women with children present in the home were seeking work. During that decade, the labor force participation rates of married women, husband present, with children aged 6-17 increased from 38% to 47%. The rates of women with children younger than 6 also increased substantially from 19% to 1960 to about 28% in 1969 (Ferris, 1971, p. 104), and presently stands at about 33% (Nordheimer, 1977). As marriage proved to be no barrier to labor force participation by older women in the 1950s, the presence of children, even young children, in the home does not prevent large numbers of mothers now from working full-time.

As these statistics indicate, the aggregate of working women in 1975 bears little resemblance to the aggregate of working women in 1900. While the contemporary pattern for some no doubt resembles the pattern of 1900, now it appears that a different kind of work cycle predominates among women. Statistics clearly suggest a substantial restructuring of the life course for American women, the broad implications of which remain to be examined by occupational behavior theorists. The primary socioeconomic determinants of labor force participation among women in 1900--marital status, family cycle stage, class and age--are much less important today. Increasingly during the course of this century, marriage has not signaled the end of a woman's work cycle. Since the post-war years, even

motherhood does not signal the end of a woman's work cycle although it may affect the type of work women seek and how employers view them. Clearly, the influence of the family cycle on women's labor force participation is waning.

> Whether age at marriage was rising or falling, whether fertility was rising or falling, whether the proportion of women with young children in the family was rising or falling, the proportion of women in the labor force was steadily rising. Among women of working age (defined as age 14 and over), about 1 in 5 was in the labor force in 1900, about 1 in 4 in 1940, 1 in 3 in 1950, and nearly 1 in 2 in 1975. (Taeuber & Sweet, 1976, p. 50)

The stability of this trend is impressive, for it has occurred with little government encouragement which might facilitate the attachment of women to the labor force. There is little evidence to suggest a slackening or reversal of this trend in the future.

This century has seen a major modification in the life roles of women. With only occasional societal encouragement, help or recognition, women have in increasing numbers added labor force participation to their adult role configurations. No longer are the work cycle and family cycle distinct phases in their adult lives. Rather, the work and the family cycles are simultaneous processes in the life course patterning of today's women. These trends indicate that a re-analysis of earlier theorizing on the development of occupational behavior is necessary if we are to understand the implications of these changes. This task calls for a theoretical perspective that synthesizes the outcome of a macro-level process, that, labor force participation, with individual level behavior, that is, the work cycle of women. In the following sections the means to do this, human development, are described, and theories of the development of occupational behavior are discussed and evaluated. Finally, considerations and issues in the integration of women's typical work-cycle changes into theories of the development of occupational behavior are discussed.

Life-Span Human Development Perspective

Human life-span development is a multi-disciplinary science drawn primarily from sociology and psychology. Human developmentalists are concerned with the identification, description, and explication of ontogenetic (age-related) intra-individual behavioral change from birth to death, and with properties and characteristics of these changes and of the variables governing them (Baltes & Goulet, 1970; Wohlwill, 1973). Human developmentalists view behavior as a dynamic process and address the complexities of that process through the study of the mechanisms, antecedents, consequences, and transitions that comprise behavioral development. As such, human developmentalists are not restricted to the observation and specification of phenomena at the individual level of analysis but are also able to identify and analyze the impact of social structure on the life course of the individual and vice versa. That is, human developmentalists are able to specify determinants of behavior as originating from both current and historical aspects of the social structure and the individual and can take into account this simultaneous effect of social structural and individual level factors. The human development paradigm is, in the very broadest sense, an articulation of the interface of all aspects of the individual with all relevant aspects of society. Because the human development perspective can account for this interface on both conceptual and empirical levels, it is ideally suited for problems such as the specification of a model of vocational behavior.

The multi-level nature of human development theory (Baltes, 1973, p. 460) is shown in Figure 1, and represents the individual and social interface. Here,

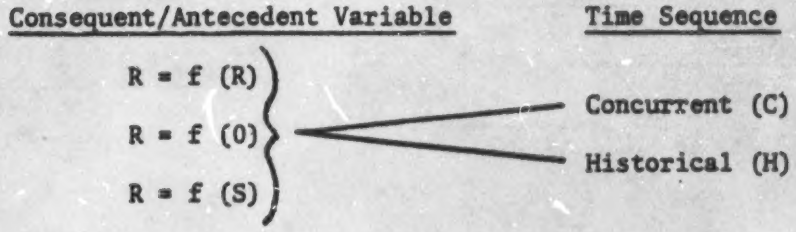
---

Figure 1 about here

R = response, O = organismic, and S = stimulus variables. The developmental

Figure 1

The Multilevel Nature of Human Development
(from Baltes, 1973, p. 460)



Developmental Formulation

$$R\ (1, 2, \ldots r)_{Tt} = f\ (R, O, S)_{Tt},\ g\ (R, O, S)_{Tt-1},\ h\ (R, O, S)_{Tt-n}$$

formulation specifies the response (R) or dependent variable to be equal to the multivariate function of previous and concurrent individual and societal responses and stimuli with organismic variables. The consequence, that is, the response or dependent variable(s), is the basis for the explication of a developmental process. Process is assumed to incorporate related responses that group into phases or stages across life and which occur in an orderly sequence. Such stages become increasingly complex across the life course as more multivariate historical phases are antecedent to concurrent ones. Stages or phases occur continuously where there is little qualitative change and more quantitative change, and discontinuously when the reverse is true.

Adaptation of the human development paradigm specified above to the development of occupational behavior is relatively incomplete. Some vocational theorists (Cooley, 1964; Holland, 1963) have isolated important components of vocational behavior such as personality traits but have failed to conceptualize them as part of a complex process. Others (Lohnes, 1965; Mitchell, Jones & Krumboltz, 1974), have specified a process model in vocational development but have not described a comprehensive one. Lohnes (1965) for example, posited that vocational development is the emergent career of an individual which can be conceptualized as a stochastic process analogous to a Markov chain. According to Lohnes, "the Markov model is a genuine process model capable of representing an ongoing life process such as the development of a career" (Lohnes, 1965, p. 322). However, while Lohnes recognized process to be the central issue in occupational behavior, he did not complete specification of the process by elaborating the presence of stages, the modes or mechanisms for change between stages, or the complexity of the process itself (i.e., possible interactions between historical, concurrent, individual and social structural factors). While Mitchell, Jones and Krumboltz (1974) identify career decisions of individuals to be both transition points and

the "mechanism" for change in the development of occupational behavior, the decisions themselves are not considered qualitatively different across life or as life-stage markers. Among occupational theorists, examination of occupational behavior as an ontogenetic process is minimally considered. The absence of a life course perspective clearly limits the usefulness of the work of most vocational theorists for human developmentalists. Finally, nearly all theorists who posit a process of occupational development focus solely on the individual level of analysis and rarely address the historical or social context of the process (Borow, 1946) thereby limiting the comprehensiveness of their work. Consequently, more complex issues such as the impact of secular changes in labor force participation patterns upon the typical life course or changes within the typical periods in which career decisions are made in the adult life of individual women are beyond the scope of earlier theoretical work.

Because the development of occupational behavior is an important component of female human development, it is essential that this process be specified with a life span approach. At present, the family life cycle has received far more attention than the work cycle, and no formal theory of the development of female occupational behavior exists. Early attempts to address the work cycle of women (Psathas, 1968; Zytowski, 1969) have not been successful either in generating research or in stimulating theoretical consideration of important issues, primarily because of insufficient specification of a model (Psathas, 1968) and of questionable assumptions about women and work (Zytowski, 1969). Within the area of vocational psychology, however, there are several formal theories relating to occupational behavior at the individual level which might contribute to an understanding of the work cycle of women. In the next section, such theories will be presented and then evaluated for relevance both to women and to the human development paradigm. The theories described were selected as representative of the

major approaches to the study of the individual's development of occupational behavior: trait-factor, personality, self-concept, and vocational development theories.[3] The theories (see Figure 2) are presented in an order that successively approximates the "ideal" theory, that is, one that can comprehensively account for all aspects of the development of occupational behavior in women. The relev-

---

Figure 2 about here

---

ance of these theories to both women and the human development approach will be discussed in reference to the following questions:

1. Does the theory describe and explain a process?
2. Does the theory have a life course perspective?
3. Is the theory comprehensive? That is, can it account for or incorporate contemporary social trends which appear to have altered the traditional configuration of normative adult roles for women?

SELECTED THEORIES

Roe

As a guide to understanding the theory of vocational choice proposed by Anne Roe (1966) it is useful to examine briefly the perspectives incorporated into the theory because it is based not on direct empirical research but on ealier work in very different fields. The major contributions to Roe's theory come from the work of personality and ego psychologists and Maslow's "need" theory, in particular, receives special prominence in Roe's conceptualization of personality development. An additional influence comes from her extensive work with the biologist, George Simpson. Roe thus adds a biological component to personality development, and genetic factors and an evolutionary perspective play important roles in her theory of vocational choice.

Figure 2

Theoretical Approaches to the Development of Occupational Behavior*

Criteria	Categories: Personality	Trait factor	Vocational	Self-concept
School of Thought	Personality theory (Psychology)	Personality theory (Psychology)	Vocational psychology (Psychology)	Self-concept theory (Psychology)
Focus	Satisfaction of needs	Match of interests and abilities with environmental opportunities	Vocational choice	Vocational development
Type of Theories	Semi-developmental	Non-developmental	Developmental	Developmental
Life Course Emphasis	Early childhood	None	Late adolescence to early adulthood	Childhood and early adulthood
Contributor	Roe	Holland	Ginzberg	Super

*Adapted from Samuel Osipow, Theories of Career Development, 2nd ed. (New York: Appleton, 1973).

The immediate catalyst to Roe's theoretical work was her study of personality differences among groups of eminent scientists (Roe, 1952, 1953). The conclusions drawn about the origin and development of personality differences among these scientists provided the data which when integrated with the above perspectives resulted in Roe's formulation of the present theory of vocational choice.

In order to illustrate the relationships of the different perspectives, a diagram of the major components of the theory is provided below.

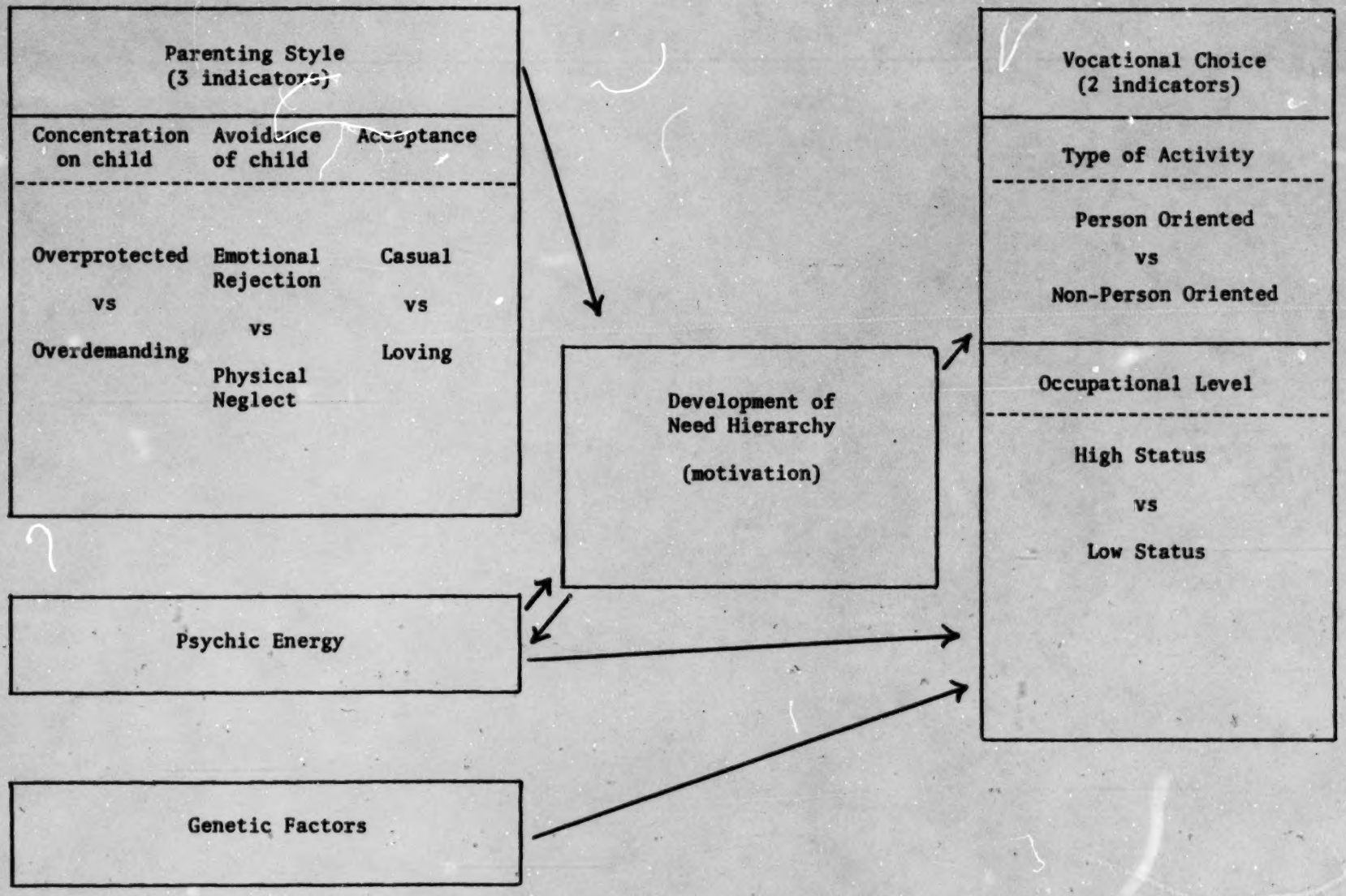
Figure 3 about here

The first grouping is concerned with variables either given at birth, that is genetic factors and psychic energy, or developed early in childhood through interaction with parents. Roe utilizes an evolutionary perspective to link genetic factors to vocational choice by emphasizing their importance to certain innate talents or aptitudes which become significant predispositions in the ultimate selection of a vocation. Of similar importance is the kind of psychic energy with which an individual is endowed because, in Roe's view, there is a relationship between personality and perception, particularly at the unconscious level, influencing vocational choice. Roe hypothesizes that "the eventual pattern of psychic energies, in terms of attention directedness, is the major determinant of the field or fields to which the person will apply himself" (Roe, 1966, p. 112).

The most important variable, however, is that of parenting style in that the early experiences of the child vis à vis his parents are central to what Roe calls the "development of need primacies." In her view, the parenting style affects both the pattern and intensity of the child's basic needs which are in turn significantly related to the level of individual motivation and ultimate

Figure 3

Roe's Personality/Vocational Theory



career choice. There are three major components of the parenting style, revealed less by specific behaviors than by attitudes toward the child, in Roe's theory. The first reflects emotional concentration on the child with possible behaviors ranging from being overprotecting to overdemanding of the child. The second indicator also has two extremes, emotional rejection or physical neglect of the child. The third indicator illustrates the child's position in the emotional life of the family and the behaviors range from casual to loving acceptance of the child.

The pattern of gratification of needs which the individual develops in response to early experiences largely determines the vocational choice in Roe's view. In his theory of the hierarchy of needs, Maslow asserts the existence of eight categories of needs, ranging from the purely physiological to the purely esthetic, which can only emerge in a certain order. Roe has adopted and extended this hierarchy by proposing that "needs satisfied routinely as they appear do not develop into unconscious motivators" (Roe, 1966, p. 112) but "needs, the satisfaction of which is delayed but eventually accomplished, will become unconscious motivators" (Roe, 1966, p. 113). Therefore, the need hierarchy developed by an individual in response to the parenting style within the family channels the individual to an appropriate vocation.

An additional consequence of the parenting style is the extent of motivation toward occupations which are non-person or person oriented. Roe derived this classification from her study of eminent scientists in which she found that most tended to come from emotionally cold home situations. Consequently, these scientists, the physical scientists in particular, sought work in fields not concerned with people. Social scientists, in contrast, usually came from families where the emotional climate was less frigid and were therefore able to orient themselves to a field concerned with the behavior of people. Roe asserts that

this is an important dimension along which all vocations are differentiated and thus underscores the importance of early childhood experience and family style for the ultimate vocational choice.

To summarize, Roe's theory of vocational choice states that the parenting style in a particular family mediates the need hierarchy developed by an individual which in turn determines the ultimate vocational choice in the context of genetically-determined skills and abilities.

Holland

Rooted in the tradition of vocational psychology which studies the relationship of personality to vocational choice, Holland's theory is clearly related to the trait-factor tradition in personality research. However, the scope of this theory extends beyond the limitations of such research by attempting to specify the means by which different personality types translate self-knowledge into vocational choice within a social context.

In Holland's view, most people organize their beliefs about the world of work through the use of occupational stereotypes. Holland posits that these stereotypes reveal important information about personality dynamics in the same way that projective techniques give insights into unconscious motives. Therefore, research into the relationship between personality and vocational choice could be facilitated by studying the significance of stereotypic typologies of occupations.

Holland used several large samples of students participating in the National Merit Scholarship program for the development of his theory. The methodology used multiple observations of occupational behavior over specified time spans, some moderate and some long in length. The basic premise of the theory is that

> at the time of vocational choice the person is the product of the interaction of his particular heredity with a variety of cultural and personal forces ... Out of this experience, the person develops

> a hierarchy of habitual or preferred methods for dealing with environmental tasks ... (which are) associated with different kinds of physical and social environments, and with differential patterns of abilities. The person making a vocational choice in a sense 'searches' for a situation which satisfies his hierarchy of adjustive orientations. (Holland, 1966, pp. 127-128)

Holland has developed several hierarchies at both the individual and societal levels of analysis to explain major factors in the vocational choice process. The first is a classification of six major work environments in American society as motoric, intellectual, supportive, conforming, persuasive or esthetic environments. In the motoric environment are found such occupations as truck driving or machine operation, within the intellectual mathematics or anthropology, in the supportive social work or teaching, in the conforming clerical work, in the persuasive sales or politics, and in the esthetic environment music or poetry. At the individual level as well is a classification of six specific personality types which parallel each occupational environment. In the motoric orientation would be found people who prefer dealing with concrete problems because they, in Holland's view, prefer to "act out" rather than "think through" problems. People in the intellectual orientation, in contrast, prefer independent work situations where they can successfully handle problems of an ambiguous nature. Those in the supportive orientation prefer a teaching or therapeutic role at work which reflects their desire for attention in a structured setting and their ability to deal with problems through feelings and interpersonal relations. In the conforming orientation are people most comfortable with structured and subordinate roles who achieve their goals by identifying with authority. People of the persuasive orientation, on the other hand, are more comfortable with loosely-defined work situations permitting them to exercise verbal skills and to acquire power, status and leadership. Finally, those in the esthetic orientation prefer a work situation where they can deal with objects in the environment rather than people.

In addition to these two classification schemes, Holland has devised a concept called the level hierarchy which takes into account the role of special abilities, intelligence, and socio-economic factors in the process of occupational choice. The modal personal orientation clearly exerts an influence on the particular work environment chosen but the specific level reached by an individual is determined by one's level hierarchy which can be predicted by the following formula: occupational level=intelligence+self-evaluation where self-evaluation is a function of socio-economic characteristics, level of education, self-concept and drive for achievement.

In a final hierarchical scheme, the developmental hierarchy, Holland posits an ordering of preferences toward the major occupational environments by each individual. For example, one person might order his preferences as motoric, conforming, esthetic, intellectual, supportive and persuasive while another might have an entirely different ranking system. In Holland's view, the stability of the vocational choice is a function of idiosyncratic rank orderings of orientations because certain groupings are more suitable for some occupations than others.

There are three stages to the operation of Holland's vocational choice process. In the first, "a person directs himself toward the major occupational class for which his development has impelled him by selecting the occupational class at the head of his particular hierarchy of classes" (Holland, 1966,p. 132). Then, "within a major class of occupations, the person's selection of an occupation is a function of his self-evaluation and his ability (intelligence) to perform successfully in his chosen environment" (Holland, 1966, p. 133). Finally, both of these stages "are mediated by a series of personal factors, including self-knowledge and evaluation, knowledge of occupational classes ... the orderliness of the developmental hierarchy; and a series of

environmental factors ... imposed by socio-economic resources and the physical environment" (Holland, 1966, p. 133).

According to Holland, occupational stereotypes facilitate an individual's vocational choice. If naive about the work world, an individual may experience difficulty in choosing a suitable occupation. If lacking in self-knowledge, an individual may vacillate between levels within a specific environment or even between environments. The smoothness of the process for the individual depends on the soundness of the structure in the developmental hierarchy and the accuracy of the ranking in the level hierarchy.

To summarize, Holland has posited a theory of vocational choice in which an individual's knowledge of self and of the world of work interact to facilitate an occupational choice. Through a complex ranking procedure of many dimensions, the individual undergoes a process by which personality dispositions are fitted to a specific occupational setting within a framework of certain abilities, skills, and socio-economic factors.

Ginzberg

In the early 1950s, Eli Ginzberg and his colleagues at Columbia University presented a general theory of occupational choice based upon twenty years of research into the role of work in modern American society. The theory which emerged from this multi-disciplinary group of social scientists is clearly grounded in the concepts of developmental psychology. As Ginzberg relates

> we therefore set for ourselves the task of identifying and evaluating the major factors in the vocational decision-making of the individual during successive periods of his maturation. Our basic assumption was that an individual reaches his ultimate decision, not at any single moment in time, but through a series of decisions over a period of years ... We sought to delineate the process, discern the most significant patterns, and describe the major deviations. (Ginzberg, 1966, p. 95)

By the emphasis on maturation and the specification of the process of occupational

choice, Ginzberg and his colleagues were clearly concerned with the explication of a developmental phenomenon.

There are three basic propositions in this theory of occupational choice: first, that occupational choice is a process; second, the process is largely irreversible; finally, compromise is an essential aspect of every choice. Hence, the major contribution of an occupational choice related to the maturation of the individual. These stages are summarized in Figure 4 below.

Figure 4 about here

The second element of the theory, the irreversibility of the choice process, contains the contribution of the social structure to the process. In many instances, the social structure precludes alterations in career choice because the timing of the decision is often critical in that the individual must make decisions "on time" with the social structure or suffer adverse consequences. This element emphasizes that the process of occupational choice occurs within a specific social framework which has a major impact on individual decisions. The third element, that occupational choice is a compromise, also refers to the interaction of societal and individual factors. To make an appropriate choice, the individual must be aware of environmental constraints and opportunities.

Ginzberg and his colleagues developed this theory from the study of an elite sample of 60 boys who ranged in age from 11 to 24. In order to test the generalizability of the theory, a sample of lower-class boys and a sample of upper-class women were also studied. From the results of this research, Ginzberg concluded that the theory could fruitfully be applied to these different samples even though significant differences among them were found.

Subsequently, Ginzberg (1972) suggested a major conceptual change in the

Figure 4

Ginsberg's Theory of the Development of Occupational Choice

STAGE Substage	AGE RANGES	DEVELOPMENTAL TASK	GOAL OF STAGE
FANTASY	0-10	assumption of make-believe work roles in play	transition from play to work orientation
TENTATIVE:			development of sense of skills and interests
Interest	11-12	identification of activities liked or disliked	
Capacity	13-14	consideration of abilities in addition to interests	
Value	15-16	awareness of social needs and personal values	
Transition	17-18	formation of practical and immediate training plans	
REALISTIC;	19-22		selection of appropriate occupation
Exploration		selection of major field of study	
Crystallization		focusing on a specific career choice	
Specification		selection of specific career or commencement of specialized training	

original theory by proposing a life-span perspective in place of the earlier emphasis on adolescence and early adulthood. He also limited the concept of irreversibility by suggesting that it now be viewed in terms of the expenditure of time and energy. That is, the process of choice could be reversed but at great cost to the individual. Finally, Ginzberg has changed his concept of compromise to one of optimization by arguing that it is possible for an individual to experience the occupational choice process throughout the life-span in a continuing search for the best fit between abilities and interests and available opportunities.

To summarize, Ginzberg and his associates have formulated a theory of occupational choice which describes a process generally occurring during adolescence in which specific developmental tasks related to vocational maturity are sequentially mastered. By the early twenties, the successful completion of these tasks results in a specific vocational choice. The goodness-of-fit between the individual and the vocational choice is a reflection of successful progress through the stages of vocational development.

Super

When Ginzberg proposed his theory of vocational choice, his work was immediately challenged by Super (1966) who criticized Ginzberg's failure to incorporate earlier research in vocational psychology into his theory. A second criticism was that although a final stage of compromise between environmental and individual factors in the process of vocational choice was proposed, Ginzberg never specified the means by which such a compromise is reached. In Super's view, that compromise is the most significant stage in the process: "(that compromise) is the crux of the problem of occupational choice and adjustment: the nature of the compromise between self and reality, the degree to which and the conditions under which one yields to the other, and the way in which the compromise is effected"

(Super, 1966, p. 102).

Therefore, Super derived his theory of vocational development by integrating earlier research in personality, developmental and vocational psychology into a general theory. At the same time, he expanded the process of vocational development to encompass stages of preference, choice, and entry and adjustment in the occupational world.

It is clear that Ginzberg and Super share a common perspective on the development of occupational behavior. However, it is also clear that Super has proposed a theory of much greater sophistication and completeness than Ginzberg. In his theory, Super has attempted the integration of biological, psychological and sociological influences into an inclusive theory of vocational development throughout the life-span. The empirical test of Super's theory was a longitudinal study begun in 1951 and designed to evaluate the concepts of vocational maturity suggested by the theory. The study sample consisted of 142 ninth grade boys in a school in upper New York State and was chosen for its generalizability. The sample was to be followed over a twenty-year period.

There are several major propositions to the comprehensive theory proposed by Super. The first is that people differ in personality, abilities and interests and are qualified because of these characteristics for a variety of occupations. At the same time, each occupation requires a certain pattern of personality traits, abilities and interests in its workers, although a tolerance for some variety exists. Second, in personality and social situation, people change with time and experience so that vocational choice and subsequent adjustment to that choice is a continuous process. Finally, the process of vocational development is essentially that of developing and implementing a self concept through a process in which the self concept results from the interaction of genetic aptitudes, physio-

logical make-up, opportunity to play social roles and self-evaluation. That process may be summed up in a series of vocational stages which are depicted in Figure 5 below.[4]

Figure 5 about here

In addition to the articulation of stages of vocational development, Super has specified the way in which the self-concept, the personality component of the theory, develops and influences the process. The self-concept, in Super's view, is a continually evolving construct. With maturation, the self-concept becomes increasingly differentiated and complex. Therefore, over time a vocational self-concept, a sub-system of the general self-concept, emerges. Although Super does not specify its developmental process, the vocational self-concept is presumed to evolve through the mechanisms of identity-testing, identification, and interaction with the environment during the early life stages critical to vocational development.

To summarize, Super has posited a multi-level, multi-stage theory of vocational development. Organized within a system of life-stages, each requiring different vocational behaviors, the theory states that vocational development is a process by which the individual reaches a compromise between abilities and interests and the demands of the environment. An important part of that process is the development of a vocational self-concept. Through its development and the mastery of vocational tasks, the individual successfully completes the stages of preference, choice, entry and adjustment in the occupational world.

Evaluation of Theories

In the previous section, theories representative of major approaches to

Figure 5

Super's Self-Concept Theory of the Development of Vocational Behavior

STAGE Substage	AGE RANGES	GOAL OF STAGE
GROWTH	1-14	growth of self-concept through interaction with family and peers
EXPLORATION: Tentative Transition Trial (little commitment)	15-22	testing of vocational choices through school, part-time work and play
ESTABLISHMENT: Trial (commitment) Advancement	23-44	implementation of a career choice and stabilization within an occupation
MAINTENANCE	45-64	continuity of vocational behavior along established lines
DECLINE	65+	preparation for retirement and relinquishment of work role

the study of the psychology of vocational behavior--personality, trait factor, and occupational development--were described in detail. In the present section, the ability of these theories to contribute to an understanding of the work cycle in women is assessed against criteria essential to the human development paradigm and in the context of demonstrated changes in the aggregate of adult women.[5] These criteria (as described earlier) are to what extent: (1) the description and explication of a process which contains an orderly sequence of phases or stages is made; (2) the presence or absence of behavioral phases across the life-course is considered; and (3) the theory can comprehensively elucidate past and present forms of the work cycle of women. The theories are discussed as they were presented i.e., in an order of successive approximation to an "ideal" developmental theory of occupational behavior of women.

Although Roe identified sources or stages (i.e., parents, psychic energy and genetic factors) of vocational behavior, she does not posit a sequence of stages in her theory. Very narrowly focused because the source of relevant variables is derived from a distinctly psychological domain, her model does not explain how the variables or dimensions interact over time with each other singly or in groups. However, given Roe's theoretical perspective, this concern is irrelevant to the theory, because she views early childhood as the critical period for the determination of vocational choice. Therefore, her model must be a static one in which there is little concern for change with age. A further indication of the static nature of the model is the assumption that the parenting style "causes" changes within the child but the reverse is not true. Roe does not allow for a dialectical relationship between parent and child; nor does she admit to any possible inconsistency or change in the parenting style of a family. Furthermore, since in Roe's theory vocational choice is determined very early in life, distinct adult stages in vocational behavior are not considered and

possible latent relationships such as the effect of maternal employment upon a daughter's adult occupational behavior cannot be discussed. Finally, there is no recognition of a social or historical context surrounding the process in which the differential impact of social strata and sex roles could be considered.

Holland's theory is a step closer to the human development paradigm. A strength of this theory is that it acknowledges the individual's perception of the social structure as a factor in the choice of a vocation. However, Holland does not consider the historical contexts through which occupational stereotypes are formed or their relationship to current differential vocational opportunities based on such characteristics as marital status, age, race or sex. Apparently, Holland has failed to consider that occupational stereotypes may in fact hinder the individual's attachment to a vocation. Vetter (1975) and Osipow (1975), among others, have discussed how such stereotypes cause the exclusion, even the self-exclusion, of qualified women from certain occupations. Consequently, the role of occupational stereotypes in a theory of vocational choice is still open to question, if that theory intends to apply to women. Holland's work is also limited in that the origins of traits which form the basis of the theory are never clearly specified. Apparently intelligence is assumed to be inborn but the other traits presumably emerge in a developmentally unspecified manner. Additionally, there is no sense of a life-span perspective in the theory with no specification of the range of life stages in which the fit between the individual and the occupational hierarchies occurs, although the timing of that fit may have important consequences. Therefore, despite the comprehensiveness of Holland's theory, it fails to meet important developmental criteria because it does not specify sufficiently the process it presumes to explain, or its life course.

Ginzberg satisfies the necessary developmental criteria by incorporating into his theory the concepts of process, stages, and hierarchic integration of

stages and by acknowledging a life-span perspective as the context in which these constructs operate. Ginzberg also takes into account social and historical trends surrounding the work cycle of men and women. However, Ginzberg's theory has two serious problems, one empirical and one conceptual. The first concerns his use of an elite sample of college women to test the generalizability of theory. While this sample is equivalent in many ways to his male sample, it does not approximate the behavior of the typical female. The conceptual problem is also related to his sample. The women who comprised the study group have probably experienced minimal discontinuities or latent periods in their work cycles, simply because they could "afford" career activity during the years of intensive childcare and may therefore not represent typical patterns of employment among women. Thus, the extent to which his theory is generalizable to most women is still at issue. A valid theory of female occupational behavior must take into account differences among women as well as differences between men and women. Consequently, a realistic specification of the work cycle of women, including the effect of interruptions of labor force participation or education (Tittle & Denker, 1977) on stage completion or subsequent stages, cannot be determined through Ginzberg's theory in its present form.

Super's theory of vocational development comes closest to satisfying our developmental criteria, having included the salient construct of process and its associated factors of stages, sequences and hierarchic integration of previous with later stages. In addition, the theory utilizes a multidimensional approach to vocational behavior in that both personal and situational determinants are included. Finally the theory describes vocational development from infancy to middle age. However, even Super's theory has serious limitations. Although the theory is multi-dimensional, its focus is microsocial, not macrosocial, and thus excludes important social structural and economic variables such as unem-

placement. Second, the theory is based on an exclusively male sample. More recent extensions of Super's theory (Putnam & Hansen, 1972) indicate that the self-concept, an integral part of the theory, is implemented differently in women. Thus, we cannot assume that the process of self-concept development and its contingent stages is identical for both sexes. Finally, the life stages used to describe vocational development in childhood, adolescence, and young adulthood are essentially those examined by other theorists. The possibility that later stages could supplement or even modify conceptualization of earlier stages is not considered, even though occupational behavior frequently extends past the mandatory retirement age, even in women. A valid developmental theory must be able to take into account life course changes where macrosocial factors, such as the extension of the mandatory retirement age or affirmative action programs, alter the timing and content of developmental stages.

CONCLUSION

It is clear that either major revision of existing theory or formulation of new theoretical perspectives is necessary for the development of a model of female occupational behavior. While this situation has been recognized by vocational theorists, proposed paradigm revisions (Psathas, 1968; Zytowski, 1969) remain virtually unused (Tittle & Denker, 1977; Vetter, 1973). At present, we simply do not have an effective theory that recognizes the unique features of women's occupational behavior, not as deviations from a male model, but as legitimate characteristics. As Leona Tyler has expressed it,

> Much of what we know about the stages through which an individual passes as he prepares to find his place in the work might appropriately be labelled 'The Vocational Development of Middle Class Males.' How much of knowledge is peculiar to this one particular group and how much can be generalized to large fractions of the human population constitutes a theoretical and practical problem of considerable importance. Enough forays into the unknown have been made to suggest that different groups in the population may indeed differ considerably in their vocational development. Inter-

> est testing of girls and women has shown, for example, that the concept of a 'career' is a much less important factor in the organizations of their choices and rejections than it is for their brothers and male classmates. A comprehensive theory of vocational development in females ... has yet to be presented. (Tyler, 1977, p. 40)

It is also clear that vocational theorists must remedy some obvious limitations of current theories before a valid model of female occupational behavior can be proposed. As Tittle and Denker have noted,

> A brief review of the current theories of career choice finds little consideration of the different patterns of life and work styles of women. Theories do not take into account research that indicates that occupational sex stereotyping occurs very early in the developmental process, (and) that the attempt to integrate marriage, family life, and work is much more problematic for women than men. (Tittle & Denker, 1977, p. 572)

Although recent trends in labor force participation among women contradict earlier assumptions that occupational behavior is peculiar to the male sex, vocational theorists have yet to take into account or to account for certain distinctive features of the occupational behavior of women. For example, we know that women are concentrated in the lower ranks of a limited number of occupations (Oppenheimer, 1970). Does this mean, in terms of existing theory, that women experience identical parenting styles, or possess identical personality traits and thus identical occupational traits, or develop identical vocational self-concepts? Furthermore, the increase in labor force participation among women began in the 1950s with the return of <u>older</u> women to work. In vocational development terms, does this suggest that vocational choice in women matures later in life? Obviously, the different ages of later waves of working women argues against this. But can the different timings of labor force entry by successive generations of women be explained by existing theories?

We posit that a solution to the current theoretical morass will be found only when women's occupational behavior is viewed from the human development paradigm which emphasizes process, comprehensiveness and a life course perspective. The critical issue at this time is whether existing theories can be revised to meet the criteria of this paradigm or must be abandoned. We find an increasing sophistication of developmental concepts applied to the study of vocational behavior in these theories but with obvious limitations. Failure to consider social structural constraints on vocational choice, failure to explain more than vocational choice (even when a more complete developmental sequence is posited), and failure to consider changes in vocational choice later in life or to extend the critical period of choice beyond late adolescence or early adulthood--all these limitations argue for an investment in the creation of new theories, rather than a rehabilitation of the old. Only in Super's work is there evidence of a theoretical process potentially applicable to women in that the major propositions of his theory are acceptable although its specific content needs substantial revision. So, although Super's theory merits serious consideration, it is not certain that inclusion of women in the model will leave much of the original theory intact.

Whether old theories are re-worked or new ones developed, it is essential that specific propositions of the human development paradigms be considered. As has been noted, "careers and work are one part of the individual's activities--female or male--over the life span ... a theory of careers that acknowledges and integrates choices in the areas of work, marriage, and family ... may better serve the goal of career exploration for women" (Tittle & Denker, 1977, pp. 553-554). Hence, the first proposition is that the development of a work cycle in women does not occur in a social vacuum, as Psathas (1968) has observed. Social structure and social change have a profound impact on the occupational

behavior of women which must be considered in any future theoretical formulation. As we have seen, the occupational behavior of women in the aggregate appears to be highly responsive to changes in the economy and in society as well. It is indeed possible that the aggregate occupational behavior of women will continue to change in the future. Therefore, theorists concerned with the vocational behavior of individual women must also consider the effect of social change on the work cycle of women. In order to do this, adoption of a paradigm which can integrate macrolevel and microlevel phenomena is imperative.

The second proposition is that the work cycle does not operate independently of other cycles in an individual's life. The biological cycle, the family cycle, and the work cycle are not necessarily parallel in development for women. Particularly in their 20s, women may be faced with asynchronous cycles in that major events in the biological cycle (the prime period for childbearing) and the family cycle (marriage and childbearing) can occur simultaneously with an important event in the work cycle (specialized training or intensive career-building activity). Therefore, the development of the work cycle is more contingent on other major life events and cycles in women; vocational development cannot be viewed in isolation from other important cycles.

Consequently, the third proposition is that timing is a mechanism of behavioral development which theoretical consideration of the work cycle must take into account (Neugarten & Datan, 1973). By this, we mean that timing regulates, for the most part, the sequence of events in individual lives. That is, timing orders event sequences into life patterns meaningful to individuals within parameters more or less implicitly established by the social structure. Therefore, timing is a mechanism of development which can have a critical impact on both the individual and the social structure. In regard to vocational development, the timing of events in the various cycles, such as age at marriage, age at

childbearing, or age at completion of education, may play important roles as antecedents or consequences of occupational behavior in the adult lives of women. In addition, there may be interactions between the cycles, as between the family and the work cycles, which could strongly influence vocational development in women. It is therefore very important that future theoretical formulations consider the effect of being "early," "on time," or "late" in major life events both within and between cycles in the lives of individual women. At the same time, the effect of alterations in timing with resultant aggregate changes in life course patternings on the social structure should also be considered. As we have seen, dramatic changes in the life course patterning of women have occurred in this century but with little or no analysis of their impact on the lives of individual women and on the social structure having been attempted. Such analyses are possible only through a developmental paradigm which can synthesize macro and microlevel processes through a comprehensive, life course perspective.

Finally, it may be that the life stages of men and women are qualitatively, if not quantitatively, different. A model of male occupational behavior cannot simply be extended to women because women may develop occupational goals, choose vocations, pursue related training and structure their work lives for very different reasons, as well as by very different timings, from men. In addition, there may be substantial differences among women in the organization of life stages. Consequently, any theoretical formulation which attempts a description and explication of the process of vocational development with an orderly sequence of stages must be prepared to verify those stages empirically and to account for variations in those stages among women.

In conclusion, the specification of the work cycle of women is a complex

task in which biological, social, historical, and psychological processes must be considered if changes in the life course patterning of women are to be understood. The developmental criteria of process, comprehensiveness, and a life course perspective not only suggest directions for theory revision or creation but provide the bases necessary for the specification of a model of female occupational behavior as well. Hence, the human development perspective makes a valuable contribution through its potential for integrating various factors into a comprehensive, coherent description and explication of the work cycle of women which ultimately should result in a model of female occupational behavior.

NOTES

This article was prepared while the first author was supported by Grant #MH14639 to the Department of Sociology, Duke University, and the second author was supported, in part, by Grant #MH13112 to the Departments to Psychiatry and Sociology, Duke University Medical Center.

[1]To illustrate this change more specifically, the average mother in 1890 was 32 years old when she had her last child. She had borne 5.4 children within a period of ten years between marriage and the end of childbearing. Sixty years later, the average woman had borne her last child at age 26. The average number of children per woman was 2.35 and the interval between marriage and birth of the last child was about 6 years (Glick, 1955, p. 4).

[2]According to Oppenheimer (1970) the explanation is a labor force pull (of older women into the work force) rather than a family push. The major factors involved in this labor force pull were an increased demand for female labor and the growth of certain occupations. Oppenheimer concludes that

> The evidence indicates that the best explanation for the great increases in the work rates of older married women is that ... in response to a declining supply (of the young single woman), demand readjusted itself, so that workers who used to be discriminated against were now acceptable, and perhaps even sought after ... in general, then, we have had a decline in the population groups from which that labor was drawn. We have had, on the other hand, an increase in the supply of two other kinds of female workers--the older woman and the married woman--because the propensities of such women have risen in response to an expanding demand for their labors. (Oppenheimer, 1970, pp. 188-189)

[3]We are indebted in this paper to Samuel Osipow who has written an excellent and comprehensive review of theories of career development. For further elaboration, see Samuel Oispow, Theories of Career Development (2nd Ed.), New York: Appleton-Century-Crofts, 1973. For a similar review of some relevant material in the area of occupational sociology, see Seymour Spilerman, "Careers, Labor Market Structure and Socioeconomic Achievement," American Journal of Sociology,

1977, 83, 551-593. The Spilerman article, however, does not refer specifically to women in the text.

[4]Super has also developed an elaborate set of vocational tasks which is too lengthy to be included here. The interested reader is directed to Super, Starishevshy, Matlin and Jordaan (1963).

[5]It is beyond the scope of this paper to compare theories against criteria used to evaluate the validity of a theory of vocational behavior. Interested readers are directed to Astin, Suniewick and Dweck (1971), Kievit (1972), Osipow (1973) and Pietrofesa and Splete (1975) for compilations, reviews and evaluations of research relating to theories of vocational behavior.

REFERENCES

Almquist, E. M. Women in the labor force. Signs: A Journal of Women in Culture and Society, 1977, 2, 843-855.

Astin, H. S., Suniewick, N., & Dweck, S. Women: A Bibliography on their Education and Careers. Washington, D. C.: Human Service Press, 1971.

Baltes, P. B. Prototypical paradigms and questions in life-span research on development and aging. Gerontologist, 1973, 13, 458-466.

Baltes, P. B., & Goulet, L. R. Status and issues of life-span developmental psychology. In L. R. Goulet & P. B. Baltes (Eds.), Life-span Developmental Psychology: Research and Theory. New York: Academic Press, 1970.

Borow, H. Development of occupational motives and roles. In L. W. Hoffman & M. Hoffman (Eds.), Review of Child Development Research (Vol. II). New York: Sage, 1946.

Cooley, W. W. Current research on the career development of scientists. Journal of Counseling Psychology, 1964, 11, 88-93.

Ferris, A. L. Indicators of trends in the status of American women. New York: Russell Sage, 1971.

Ginzberg, E. Toward a theory of occupational choice. In H. J. Peters & J. C. Hansen (Eds.), Vocational Guidance and Career Development (2nd Ed.). New York: Macmillan Co., 1966.

Ginzberg, E. Toward a theory of occupational choice: a restatement. Vocational Guidance Quarterly, 1972, 20, 169-176.

Glick, P. C. The life cycle of the family. Marriage and Family, 1955, 17, 3-9.

Hayghe, H. Families and the rise of working wives: an overview. Monthly Labor Review, 1976, November, 12-19.

Holland, J. L. Explorations of a theory of vocational choice and achievement. Psychological Reports, 1963, 12, 547-594.

Holland, J. L. A theory of vocational choice. In H. J. Peters & J. C. Hansen (Eds.), Vocational Guidance and Career Development (2nd. Ed.). New York: MacMillan Co., 1966.

Kievit, M. B. Review and Synthesis of Research on Women in the World of Work. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, The Ohio State University, March, 1972. (Information Series No. 56.)

Klein, D. P. Women in the labor force: the middle years. Monthly Labor Review, 1975, November, 10-16.

Kreps, J. Sex in the Marketplace: American Women at Work. Baltimore: Johns Hopkins Press, 1971.

Lohnes, P. R. Markov models for human development research. Journal of Counseling Psychology, 1965, 12, 322-327.

Mason, K., Czajka, J., & Arber S. Change in U. S. women's sex-role attitudes, 1964-1974. American Sociological Review, 1976, 41, 573-596.

Mitchell, A. M., Jones, J. B., & Krumboltz, J. D. A social learning theory of career decision making. Final report for Contract NIE-C-74-0134, 1974.

Neugarten, B., & Datan, N. Sociological perspectives on the life cycle. In P. Baltes & K. W. Schaie (Eds.), Life-span Developmental Psychology: Personality and Socialization. New York: Academic Press, 1973.

Nordheimer, J. The family in transition: a challenge from within. New York Times, November 27, 1977.

Oppenheimer, V. The Female Labor Force in the United States. Westport, Conn.: Greenwood Press, 1970.

Osipow, S. Theories of Career Development (2nd Ed.). New York: Appleton-

Century-Crofts, 1973.

Osipow, S. (Ed.). Emerging Woman: Career Analysis and Outlooks. Columbus, Ohio: Charles E. Merrill, 1975.

Psathas, G. Toward a theory of occupational choice for women. Sociology and Social Research, 1968, 52, 253-268.

Pietrofesa, J. J., & Splete, H. Career Development: Theory and Research. New York: MacMillan, 1975.

Putnam, B., & Hansen, J. Relationship of self-concept and feminine role concept to vocational maturity in young women. Journal of Counseling Psychology, 1972, 19, 436-440.

Retert, S., & Bumpass, L. Employment and approval of employment among mothers of young children (Working Paper 74-4). University of Wisconsin-Madison: Center for Demography and Ecology, 1974.

Roe, A. The Making of a Scientist. New York: Dodd, Mead, 1952.

Roe, A. A psychological study of eminent psychologists and anthropologists and a comparison with biological and physical scientists. Psychological Monographs, 1953, 67, 1-55.

Roe, A. Early determinants of vocational choice. In H. J. Peters & J. C. Hansen (Eds.), Vocational Guidance and Career Development (2nd Ed.). New York: MacMillan, 1966.

Samuelson, P. Shameful sex economics. Newsweek, December 12, 1977.

Smuts, R. W. Women and Work in America. New York: Columbia University Press, 1960.

Spilerman, S. Careers, labor market structure and socioeconomic achievement. American Journal of Sociology, 1977, 83, 551-593.

Super, D., Starishevsky, R., Matlin, N., & Jordaan, J. P. Career Development: Self-concept Theory. New York: College Entrance Examination Board, 1963.

Super, D. A theory of vocational development. In H. J. Peters & J. C. Hansen (Eds.), Vocational Guidance and Career Development (2nd Ed.). New York: MacMillan, 1966.

Taeuber, K. E., & Sweet, J. A. Family and Work: the social life cycle of women. In J. Kreps (ed.), Women and the American Economy: A Look to the 1980s. Englewood Cliffs, N. J.: Prentice-Hall, 1976.

Tittle, C. K., & Denker, E. R. Re-entry women: a selective review of the educational process, career choice, and interest measurement. Review of Educational Research, 1977, 47, 531-584.

Tyler, L. The encounter with poverty--its effects on vocational psychology. In H. J. Peters & J. C. Hansen (Eds.), Vocational Guidance and Career Development (3rd Ed.). New York: MacMillan, 1977.

Van Dusen, R., & Sheldon, E. The changing status of American women. American Psychologist, 1976, 31, 106-116.

Vetter, L. Career counseling for women. The Counseling Psychologist, 1973, 4, 54-67.

Vetter, L. The majority minority: American women and careers. In J. S. Picou & R. E. Campbell (Eds.), Career Behavior of Special Groups. Columbus, Ohio: Charles E. Merrill, 1975.

Wohlwill, J. The Study of Behavioral Development. New York: Academic Press, 1973.

Women's Bureau. 1975 Handbook on Women Workers. Washington, D. C.: U. S. Department of Labor, 1975.

Zytowski, D. G. Toward a theory of career development for women. Personnel and Guidance Journal, 1969, 47, 660-664.